

## Looking at the Perceived Benefits of Feeding Program in the Eyes of the Stakeholders

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### Abstract

The study focused on the effects of school-based feeding program in the eyes of the stakeholders conducted on March 2019 to grades 1 to 6 beneficiary pupils, selected teachers, SBFP In-Charge and School Head of Mansagomayon Elementary School, District 4 of Sta. Catalina, Division of Negros Oriental. A descriptive design was used in this study which deemed appropriate in the context of this study since the researcher will describe the effectiveness of the SBFP as employed in the research locale. Additionally, Key informant interview with the selected representatives of the identified groups of stakeholders was conducted to provide qualitative support to the claims of the study. Since this study used the KII as the principal mode of data gathering among the participants, a semi structure interview guide was used. The said interview shall be composed of 7-10 questions that were patterned to achieve the objectives of this research conduct. However, the researcher has the leeway to ask a follow up questions given the goal of the research is not yet clarified to the respondents.

Meanwhile, the secondary data such as the baseline and endline data of the respondents' nutritional status were taken from the Nutrition Coordinator of the school. Mean and t-test was used to analyze the data. Results revealed that the nutritional status of the pupils were below normal despite of the efforts in giving supplement and dietary assistance of the school through the conduct of feeding program hence the very purpose of the program in providing complete meals and enhancing the nutrition of these pupils were not thoroughly achieved.

The mean of pupils' baseline and end line data shows a highly significant difference on the baseline and endline data results for the pupils' BMI with a P-value of 0.000 and t-value of -3.570. This implies that the results of the BMI of the pupil beneficiaries differ significantly before and after the 120 days feeding program. This means that there was a change and movement in the nutritional status of the pupils as the program was implemented.

## I. INTRODUCTION

Feeding program as a social safety net has been popular in developing countries as an instrument for achieving the Millennium Development Goals. School-based feeding programs (SBFPs) are then intended to alleviate short-term hunger, improve nutrition and cognition of children, and transfer income to families (Joma, 2011). Also, Lawson (2012) indicated how these programs are frequently targeted towards populations that are food insecure and reside in areas with high concentrations of families from low socioeconomic status, or towards schools that face poor attendance and enrolment for school-aged children. Neervoort (2013) further specified that SBFPs have been established in large parts of developing countries all over the world, improving general socioeconomic conditions as well as providing educational and nutritional benefits to children.

In this connection, Middleton et al. (2013) indicated that schools have a crucial role for promoting and establishing healthy behaviours early in the life-course. In recent years, the emphasis has been to improve the food-culture, moving beyond changes to just the food provision or education, but to improve the “whole-school” learning environment (Rana & Alvaro, 2010, Dick et al. 2012).

Middleton et al. (2013) further indicated the cultural issues that necessitate these healthy eating programs mean that interventions are not without challenges to their application and effectiveness particularly as they rely on collaboration between stakeholders: teachers, parents, public health practitioners, policy makers among others. Large school-based nutrition programs which use a “whole-school” approach rely on the insight and collaboration of teachers and parents.

As stakeholders, they provide critical contact with children when healthy eating habits and education can make a significant impact on life-long health. Their roles as “social agents” are important when considering implementation and evaluation of the conduct of SBFPs. Policy makers, researchers and other practitioners must perceive the value of their contributions. Hence, the study focuses on the Perceived Benefits of the Feeding Program in the Eyes of the Stakeholders of Mansagomayon Elementary School, Sta. Catalina District 4 for SY 2018-2019”.

## II. METHODOLOGY

### Research Design

This study used the descriptive research design to capture the objectives of this study. According to Gonzales and Calderon (2015), it is the research design that deals with the present condition. Moreover, according to Cooper, et al. (2014) this could be done by creating a profile of a group of problems, people, or events. Such studies involve the collection of data and the number of times the researcher observes a single event or characteristics. Furthermore, descriptive research was used to obtain information and to describe what exists with respect to the variables or conditions identified herein. Descriptive research is often used as a pre-cursor to more quantitative research designs, the general overview giving some valuable pointers as what

variable are worth testing quantitatively (USC Libraries, 2015). Thus, it is deemed appropriate in the context of this study since the researcher will describe the perceived benefits of the SBFP as employed in the research locale. Additionally, key informant interview with the selected representatives of the identified groups of stakeholders was conducted to provide qualitative support to the claims of the study.

### **Research Respondents**

The respondents of the study comprised a total of 12 (3 from each group of respondents): teachers, pupils, school heads and SBFP-in-charge, and parents of Mansagomayon Elementary School, Sta. Catalina District 4, Division of Negros Oriental.

The respondents of this study were purposively identified members of the school's stakeholders in lieu of the SBFP implementation. In the selection of the participants the following criteria are considered: (1) They should have a direct connection and concern to the implementation of the SBFP in school; (2) They should have at least one child who are a recipient of the SBFP as external stakeholders of the school, such as parents; and (3) They should be willing to participate until the completion of this study.

### **Research Procedure**

First, the researcher sought the approval of the committee research in-charge of the Central Philippine State University. Then, permission to conduct the study was requested from the Division of Negros Oriental through the office of the Schools Division Superintendent. Next, the researcher asked permission to the school head to gather data of school nutritional status baseline and end line.

The researcher then conducted the Key Informant Interview to the different respondents' pre-scheduled at the most convenient time and place upon the participants' approval using the interview guide questions. The criteria as specified in the respondents of the study were the guide of the researcher in selecting the samples. Presentation of research results through interview was then employed to capture the opinions, facts and insights from the participants. The qualitative data generated from this activity was utilized in supporting and enhancing the qualitative data of this research.

### **Plan for Data Analysis**

Since this study use the KII as the evaluation study as the principal mode of data gathering among the participants, a semi-structured interview guide was used. The said interview was composed of 7 questions that were patterned to achieve the objectives of this research conduct. However, the researcher has the leeway to ask a follow-up questions or probing questions given the goal of the research is not yet clarified to the respondents. Meanwhile, the secondary data such as the baseline and endline data of the respondents' nutritional status were taken from the School-based Feeding Program and/or Health and Nutrition Coordinator of the school.

### III. RESULTS AND DISCUSSION

This chapter presents the analyses and interpretation of data gathered to answer problem under study. It consists of qualitative and quantitative presentations collected in an interview form and insightful evaluation and understanding of this study.

**Table 1.** *Profile of the Respondents*

GRADE LEVEL	BODY MASS INDEX (BMI)	Baseline Data			Endline Data		
		MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
G1	Severely Wasted	4	2	6	0	0	0
	Wasted	0	1	1	0	0	0
	Normal	8	3	11	12	6	18
	Overweight	0	0	0	0	0	0
	Obese	0	0	0	0	0	0
G2	Severely Wasted	8	5	13	0	0	0
	Wasted	0	0	0	1	0	1
	Normal	14	5	19	21	10	31
	Overweight	0	0	0	0	0	0
	Obese	0	0	0	0	0	0
G3	Severely Wasted	3	5	13	0	0	0
	Wasted	1	0	1	2	2	4
	Normal	4	5	9	6	7	13
	Overweight	0	0	0	0	0	0
	Obese	0	0	0	0	0	0
G4	Severely Wasted	6	4	10	0	0	0
	Wasted	1	1	2	0	0	0
	Normal	7	5	12	14	10	24
	Overweight	0	0	0	0	0	0
	Obese	0	0	0	0	0	0
G5	Severely Wasted	4	9	13	0	0	0
	Wasted	1	0	1	0	0	0
	Normal	4	7	11	9	16	25
	Overweight	0	0	0	0	0	0
	Obese	0	0	0	0	0	0
G6	Severely Wasted	7	8	15	0	0	0
	Wasted	0	0	0	0	0	0
	Normal	2	9	11	10	18	28
	Overweight	0	0	0	0	0	0
	Obese	0	0	0	0	0	0

The first table presents the profile of the respondents across their Body Mass Index (BMI) data.

Table 1 shows the profile of the respondents in terms of their body mass index before and after the feeding program.

The baseline data for Grade 1 pupils of Mansagomayon Elementary School showed that out of 18 participants, 6 of them were severely wasted, 1 wasted, and 11 of them have a normal body mass index (BMI). For Grade 2, out of 32 participants, 13 of them were severely wasted and 19 of them were of normal body mass index. Moreover, there were 13 severely wasted, 1 wasted, and 9 pupils with normal body mass indexes for Grade 3 out of 17 participants. Out of 24 Grade 4 participants, 10 of them were severely wasted, 2 of them were wasted, and 12 of them have a normal body mass index. For the 25 pupils of Grade 5, there were 13 severely wasted, 1 wasted, and 11 normal BMI. Lastly, out of 26 Grade 6 participants, there were 15 pupils with severely wasted BMI and 11 pupils with a normal BMI. This implies that most of the participants belong to the lowest bracket of nutritional status and were identified as undernourished and over nourished before the school-based feeding program was implemented.

On the other hand, the endline data reflected in the table showed that all 18 Grade 1 participants have achieved a normal body mass index. For grade 2, 31 participants have achieved a normal body mass index, only 1 participant was wasted out of 32 participants. Moreover, there were 13 participants who achieved a normal body mass index, and 4 of the participants were wasted out of 17 Grade 3 participants. For the 24 Grade 4 participants, all of them achieved normal body mass index while same is true with the 25 Grade 5 and 28 Grade 6 participants. This implies that the nutritional status of the pupils of Mansagomayon Elementary School have improved and was enhanced by the School-based feeding program. This means that those pupils that were identified as severely wasted become wasted and /or normal in terms of their body mass index, however, those pupils with normal nutritional status retained to be in the normal status.

**Table 2.** *Mean of Pupils' Nutritional Data*

	<b>Mean</b>	<b>Std. Deviation</b>	<b>Interpretation</b>
Baseline Data	14.80	3.261	Underweight
Endline Data	15.79	1.708	Underweight

Table 2 showed the mean body mass index of the pupils for the baseline and end line data. Result showed that the average BMI in the baseline data was 14.80 with standard deviation of 3.261 interpreted as underweight, while the average BMI for the end line data obtained was 15.79 with standard deviation of 1.708 still interpreted as underweight. This implies that the nutritional status of the pupils were below normal despite of the efforts in giving supplement and dietary assistance of the school through the conduct of feeding program hence the very purpose of the program in providing complete meals and enhancing the nutrition of these pupils were not thoroughly achieved.

In connection to the abovementioned, the result reflects the conflicting arguments as to whether households adjust the feeding practices of school children at home in response to SFPs. It has been shown that there is no reduction of food at home given to children who participate in SFPs in such a way that those children who benefit from SFP should get less at home. Instead, school meals are additional diets intended to what he or she can get from home. To the contrary, there are counter arguments to such claims. In response to the school meals, families may also adjust resource allocation among children within the household by taking away some resources from beneficiary children and redistributing them to other members of the household (Kazianga, de Walque et al. 2009; Lalamonan & Comighud, 2020; Comighud et al., 2020). As a result, those

children from whom resources are taken away will be worse off if the food provided at school is not very useful compared to what they would have had at home.

Also, this is supported by PEDIATR (2018) who noted that School Feeding Program (SFP) is a targeted safety net program designed to provide educational and health benefits to vulnerable children. However, limited evidence exists regarding the effect of the intervention on the nutritional status and school attendance of children. Moreover, there are many studies that have evaluated its impacts and effects. Analysis of the information extracted from these studies shows that it conclusively impacts the micronutrient level of targeted children, but have modest and mixed effects on health outcomes as evaluated by anthropometric measurements. This further implies that having an in-school feeding program—even that reaching the most needy populations—does not necessarily address the desired goals of compensating for nutritional deficits and correlating to improved test results (Ardoque & Orlicki, 2013; Pillado, Futralan, & Comighud, 2020).

### **Perceived Benefits of Feeding Program**

#### **SBFP as a DepEd Initiative: A Means to Improve Physical Health and Provide Nutritional Benefits**

In Maslow's hierarchy of needs, the physiological needs must be met. That children need food in the right quality and quantity. Food is necessary because it builds, protects and repairs the body. The malnutrition and its effects on brain development have tremendous implications on child performance. Poorly-fed children are more exposed to disease infections and emotional frustrations as compared to well fed children.

The School-Based Feeding Program (SBFP) aims to address undernutrition among public school children. Primarily, it aims to improve the nutritional status of the beneficiaries by at least 70% at the end of 120 feeding days. Secondly, it aims to increase classroom attendance by 85% to 100% and improve the children's health and nutrition values and behaviour (DepEd Order No.39, s.2017). In support, these are what the participants made mentioned:

*The School-Based Feeding Program is defined as an intervention to provide supplementary meals to children in the school setting. This serves as a means to enhance their physical health and promote nutritional values and benefits. Hence, through this, children were provided with nutritious meals to help decrease the incidence of malnourishment. ("Teacher Jea Marie")*

*SBFP is a program that nourished children for them to be physically-active. In line with this, it is considered relevant by being an aid in supporting physical growth and development. ("Teacher Rodelyn")*

*SBFP is a program initiated by DepEd to all wasted and severely wasted children in school. Its objective is to rehabilitate at least 70% of the identified beneficiaries. Moreover, the program is considered relevant as the foods served are utilized by the body to enhance physical growth and increase energy level for learners to perform well in school. ("Teacher Melody")*

*SBFP helps pupils become healthy and strong. It is also a program that aids children who are undernourished to gain the right nutrition most especially for those underweight, wasted or severely wasted not to experience hunger anymore. ("Pupil Cherry Mae")*

*SBFP is a program that helps children who lacks nourishment in their respective homes. It is relevant to our school children undernourished and very sustainable for 120 days because of the cooperation of the children, parents and teachers in school. (“School Head”)*

*It is a program that aims to uplift the nutritional status of the children below normal level. Moreover, it is relevant for children’s mind and body to function to its fullest especially for them to be both mentally-engaged and physically-active. (“SBFP-in-charge 1”)*

*SBFP provides undernourished children with healthy meal. It is anchored on the objective to improve children’s physical health. In addition to this, it is efficient to provide healthy and nutritious meal. (“Parent 1”)*

*It is relevant because healthy and nutritious foods were served which in turn enhance children’s physical well-being and health aspects. (“Parent 2”)*

In support to the abovementioned findings, Middleton et al. (2013) noted that School-based Feeding Program (SBFP) sought to address nutritional objectives. Another study also shows that School Feeding Programs can improve health by reducing morbidity and illness and hence attract children to school (He, 2009). In addition, Joma et al. (2011) in a study noted that school feeding programs (SFPs) are intended to alleviate short-term hunger and improve nutrition in addition to enhancing cognition of children, and transferring income to families. Analysis of the articles revealed relatively consistent positive effects of school feeding in its different modalities on energy intake, and micronutrient status among others.

Also, Ardoque and Orlicki (2013) in their study noted that as Argentina presents problems of malnutrition, the federal in-school feeding program has become a key policy because it provides an important nutritional intervention during a relevant growth period. The findings suggest that the program has successfully targeted the most disadvantaged schools.

Furthermore, this is supported by Pediatr (2018) who noted that School Feeding Program (SFP) is a targeted safety net program designed to provide educational and health benefits to vulnerable children. Moreover, there are many studies that have evaluated its impacts and effects. Analysis of the information extracted from these studies shows that it conclusively impacts the micronutrient level of targeted children, but has modest and mixed effects on health outcomes as evaluated by anthropometric measurements. This further implies that having an in-school feeding program—even that reaching the most needy populations has necessarily address the desired goals of compensating for nutritional deficits and correlating to improved physical growth (Ardoque & Orlicki, 2013).

### **SBFP as a Nutritional Advocacy: A Key to Promote Academic Learning and Enhance Scholastic Achievement**

School feeding mostly takes place within the context of broad national school reform programs. These reforms should focus on other essential inputs to education and learning such as teacher development, curriculum reforms and student assessment.

*SBFP is a program that does not only help beneficiaries to be physically nourished but also to become mentally-engaged in classroom activities. (“Teacher Rodelyn”)*

*It helps children become more active and participative in the teaching and learning process for them to get high grades in academics. ("Pupil Jean")*

*SBFP helps children not only to become active but engaged in class discussions. Aside that it is a remedy to short-term hunger, it also enhance nutrition and cognition. ("SBFP-in-charge 2, Teacher Josephine")*

*SBFP aims providing food supplements to the identified wasted and severely wasted children during lunchtime to increase their academic performance. ("SBFP-in-charge 1")*

*The objective of SBFP is not only centered on the improvement of children's physical health but also on the enhancement of their mental aspects. This indeed served as a means for them to perform well in academics. ("Parent 1")*

*SBFP helps learners to be participative in intellectual undertakings both in the classroom settings and school contexts. ("Parent 2")*

*The targets of the program have been catered well which are evident in the positive results of their school performances. ("Teacher 2")*

Several researchers support the above stated findings. The interaction between nutrition and education can be generally understood in three ways (Kazianga, de Walque et al. 2009). First, nutrition and health statuses influence the child's learning and his/her performance in school. That is poor nutrition among children affects their cognitive function and hence reduces their ability to participate in learning activities at school. Second, children who are malnourished or who are unhealthy are unable to attend school regularly and which in turn leads to poor academic performances. Third, hungry children encounter difficulties to concentrate and perform complex tasks than well-nourished ones. Moreover, according to Pediatre (2018) and Lalamonan and Comighud (2020), attendance and school performance are greatly enhanced by school feeding program.

Joma et al. (2011) in a study SFPs are not only intended to alleviate short-term hunger and improve nutrition but also enhance children's cognition. In addition to this, Otieno (2014) in a study indicated that a school feeding program is essential to provide a balanced diet to ECD children which would in turn enable them to increase their attention span, hence, achieving a better academic achievement. Hence, the school feeding program is a crucial component in the development of a holistic child. Therefore, nutrition and health are powerful influences on a child's learning and how well a child performs in school.

In line with the abovestated, Chepkwony et al. (2016) noted that the School Feeding Program (SFP) is an essential aspect of child growth and holistic development. To establish a functional SFP, parents should be involved in all procedures to ensure sustainability of the program which will cater for children from diverse socio-economic backgrounds hence academic achievements among Early Childhood and Development (ECDE) children.

Routman and Smith (2016) in a study also noted that the implementation of school feeding programs have a significant impact on learning outcomes in the areas of reasoning, memory, comprehension and knowledge. Additionally, the study analyzes the impact of governance (in this case the presence of a parent

teacher association) on student achievement. The results showed that the feeding program contributed to the cognitive development of the students and produced positive outcomes that were more pronounced in Math than in French. Ogbugo and Taylor (2016) in the study indicated that with a view to determine its effects, there is also an increase in school enrolment, retention, and academic performance of the pupils.

Furthermore, Barroga et al. (2016) in the study indicated that adequate nutrition is vital in the proper growth and development of children as it conditions their learning ability and their capacity to work. The child's mental and physical development in early life demands healthy and nutritive foods. In this study, a supplemental feeding program for underweight pupils with a five-month duration was implemented using a cycle menu. Results revealed significant improvement of pupils in their school performance like eagerness to attend classes regularly and promptly, good grades, active participation in school activities to mention a few.

Thus, as stakeholders revealed that children are participative in class discussion, exudes happy faces and less susceptible to diseases. Participant SBFP in-charge 2 said *"It helps children become more active in class engagements, happier and more interactive in social activities with peers and healthier or physically fit in doing different tasks and assignments"*. Thus, apart from the easily perceptible benefit of improving the nutritional status of school children, other literature has reported other wide ranging positive outcomes. These findings are supported by Otieno (2014) who indicated that a school feeding program is essential to provide a balanced diet which would in turn enable the children to increase their attention span, hence, better academic achievement will be achieved as an outcome.

### **SBFP as a Food-based Incentive: A Means to Increase School Participation and Educational Access**

School-based feeding program as a social safety net has been popular in developing countries as an instrument for achieving the Millennium Development Goals. Food-based incentives such as school meals and take-home rations will compensate for both direct and opportunity costs resulting to school participation.

*It is a program that helps those who lacks nourishment in their respective homes. It does not only improve classroom performance but also increase school attendance. ("School Head")*

*The main objectives of the program are to feed children who do not have enough food at home to lessen their absenteeism and increase school interest in addition to school participation making, thus, them more capable to do work. ("Teacher 2")*

*It improves class attendance, school enrolment, and nutritional status, hence, increasing academic achievement and promoting inclusion in school. ("SBFP-in-charge 1")*

*It is effective in a way that those pupils with nutritional deficiency are catered well and efficient in a way that those identified beneficiaries can attend classes every day. ("Teacher 1")*

*It helps us become physically active, mentally sharp and socially engaged. ("Pupil 1")*

The abovementioned statements support the findings that school meals increase school participation by improving nutrition by enabling children get more nutrients which leads to better educational achievements. Therefore, it attracts more children to come to school (He, 2009). Moreover, analysis of the articles revealed relatively consistent positive effects of school feeding in its different modalities on energy

intake, micronutrient status, school enrollment, and attendance of the children participating in SFPs compared to non-participants.

Lawson (2012) in a study noted that these programs are frequently targeted towards populations that are food insecure and reside in areas with high concentrations of families from low socioeconomic status, or towards schools that face poor attendance and enrollment of students. There are many studies that have evaluated the impacts of school feeding. Analysis of the information extracted from these studies shows that school feeding programs conclusively impact the micronutrient level of targeted children, but have modest and mixed effects on health outcomes as evaluated by anthropometric measurements. While the impact of these interventions on cognitive skills and abilities of students is still uncertain, there is strong evidence that school feeding programs positively affect school enrollment and attendance rates, especially for girls.

Aregawi (2012) in affirmation noted that School Feeding Program (SFP) is one of the major strategies of Education Sector Development Program II (ESDP), with specific objectives of improving access, stabilizing attendance, increasing enrollment, reducing dropout and alleviating short-term hunger for better learning (Lalamonan & Comighud, 2020)

Ogbugo and Taylor (2016) also indicated its effects on school enrolment, retention, and academic performance of the pupils. In the same manner, Barroga et al. (2016) added that adequate nutrition is vital in the proper growth and development of children as it conditions their learning ability and their capacity to work. The child's mental and physical development in early life demands healthy and nutritive foods. Results revealed significant improvement of pupils in their school performance like eagerness to attend classes regularly and promptly, good grades, active participation in school activities to mention a few (Comighud, 2019; Comighud & Arevalo, 2020; Pillado, Futralan, & Comighud, 2020; Comighud et al., 2020).

Tagaki and Yamaguchi (2018) also revealed that with respect to improved school presence, growth of vegetables, and observed positive health habits and behaviors, the SBFP might be evaluated as a "well managed program". In support, Jensen (2010) said school feeding mostly takes place within the context of broad national school reform programs. In line with increased school participation, attendance and school performance are greatly enhanced (Arevalo & Comighud, 2020; Lalamonan & Comighud, 2020)

### **SBFP as a Food Culture: A Tool to Establish Healthy Eating Behaviors among Children in Their Life Course**

Schools have a crucial role for promoting and establishing healthy behaviors early in the life-course. In recent years, a substantial effort and resources have been invested in attempts to change the 'food culture' in schools in westernized societies. Large school-based programs which promote healthy eating often utilize an ecological model for instigating behavior change amongst school children. An ecological model is a set of comprehensive intervention strategies that target a multitude of factors which influence the eating practices of children in the school setting. The cultural issues that necessitate these healthy eating programs mean that interventions are not without challenges to their application and effectiveness particularly as they rely on collaboration between stakeholders: teachers, parents, public health practitioners, policy makers and more. The stakeholder input and relations are key parts of planning, implementing and evaluating complex health promotion and education programs in schools. This commentary will outline the importance of considering both teachers and parents as influencing agents or 'enablers' in the process of creating change in this context. Parental perceptions and teachers' insights are critical for underpinning intervention feasibility, acceptability

and performance. Their perceptions and understandings can provide ground-level and highly applicable expertise and importantly motivate children in the school environment. The philosophical principles behind parent and teacher integration into formal program evaluation are discussed, providing a theoretical basis for program evaluation. Recommendations are made for policy makers, researchers and professional evaluation experts' to consider and integrate these stakeholders in future programs (Middleton et al, 2013).

*SBFP helps pupils who belong to the food insecure population to become healthy and strong. ("Pupil Cherry Mae")*

*The program has been promoting quality food culture as it is supplemented by other projects and advocacies sustaining health and nutrition through the conduct of GPAK, handwashing and toothbrushing as well as clean and green project to mention a few. ("Pupil Sharlyn Mae")*

*It is important that for the program to become sustainable, we should as well help its implementation through extending support like cleaning the feeding center and bringing food from home. ("Pupil Reyna Jean")*

In addition to the growing need for recognition of the impact of parents and teachers on program uptake, there is also a growing body of evidence that supports the notion that school children themselves, as recipients of many program actions, are worthy of consultation (Evans et al., 2013; Arevalo & Comighud, 2020). The centrality of participants' perceptions of health programs has been outlined, but there is a tendency for practice in schools to view school children as passive recipients of health programs. Such an approach can reduce people endowed with whole bodies, sentience, feelings and personalities embedded in class, gender and culture to the management of physiological and psychological part-processes (Evans & Sleaf, 2012; Arevalo & Comighud, 2020; Comighud, 2019; Comighud et al., 2020). Instead, there is a growing appreciation that young people in schools can be regarded as expert 'knowers' of programs due to their first-hand experiences of program delivery, and as embodied individuals upon which 'health' ideologies are imprinted. Indeed, there is much to be gained by investigating young people's first-hand, embodied experiences of health-based programs because of the potential for target groups, as well as formal and informal stakeholders, to resist, re-interpret and contour the manner in which programs are received. Sociological and phenomenological studies of young people's embodied experiences are on the increase, which emphasize how young people negotiate ideologies of health and wellbeing within and through their bodies.

### **SBFP Program Evaluation: An Ecological Model to Promote Stakeholders' Collaboration**

Large school-based nutrition programs which use a 'whole-school' approach rely on the insight and collaboration of teachers and parents. As stakeholders, they provide critical contact with children when healthy eating habits and education can make a significant impact on life-long health. Their roles as 'social agents' in this context is important when considering implementation and evaluation of school-based programs. Policy makers, researchers and other public health practitioners must avoid neglecting their contributions.

The potential for informal stakeholder perceptions to influence program delivery should not be overlooked and this chapter highlighted the theoretical importance of parental and teacher integration in program evaluation. Inclusion and participation early in the design and throughout can often determine

feasibility, performance and subsequent outcomes that the program is projected to achieve. Although this chapter focused on parents and teachers, the active involvement of children in the design and implementation of programs should also not be ignored either. Their input will bring greater participation and tackle issues over barriers and palatability of interventions. Indeed, the creative 'Food Dudes' intervention illustrates how an intervention can be invented to support and encourage change by involving children from the outset.

*Feeding program has been considered very effective as it is highly monitored by the in-charge teachers and given adequate support by other stakeholders. Indeed, it resulted the undertaking yielded to positive effects. ("Teacher Melody")*

*The program has been sustainable as it gained support from the Department of Education (DepEd) and the local government unit itself. It has also been sustained by the school stakeholders through the GulayansaPaaralan Alay saKabataan (GPAK) Initiative. ("Teacher Rodelyn")*

*It is effective since it has not only been planned and budgeted by the government but also supported by the stakeholders through the close monitoring of teachers and active support of parents. ("Teacher Marie")*

*SBFP has been sustainable for 120 days as it has been supported by the government and the stakeholders. ("Parent 1")*

*SBFP has been successful due to the cooperation shown by the teachers, parents and pupils in school. ("School Head")*

In line with an increase in the investment in and frequency of school-based programs, there has also been a steady increase in the systematic reviewing and evaluation of such programs (Brown & Summerbell, 2009, Waters et al., 2011, Verstraeten, et al., 2012). Research has paid particular attention to programs that use a whole-school approach which account for the wider social, cultural and environmental factors which influence children in the school setting. As such, programs when they are devised are theoretically informed by an 'ecological' model (Lee et al., 2010). Ecological models are comprehensive intervention strategies or frameworks that logically isolate 'change' mechanisms at multiple layers of influence over the key determinants of health. This approach has been advocated as a means for promoting wide-scale change in the child's learning environment in school (Lee et al., 2010, Lohrmann, 2010). In practice, this type of model proposes that practitioners take actions in many of the different social spheres in which children learn and develop early nutrition and healthy eating practices (Hemar-Nicolas et al., 2013). Consequently, when public health practitioners, evaluation specialists and researchers devise school-based programs they often have multiple interventions operating at the same time. Inevitably, this has produced complex and multi-faceted programs with numerous interventions operating at different levels (age ranges, class groups, year groups) and possibly various stages during the child's schooling years. Furthermore, program interventions are delivered in multiple settings (classroom, canteen, in the community etc.) and although they regularly operate within one school, various collaborative programs have managed to work between several schools in a close geographic area at the same time (Dick et al., 2012, Middleton et al., 2012; Lalamonan & Comighud, 2020).

Researchers in the field convey that the very nature of large and complex school-based programs produces problems in design, implementation, evaluation and sustainability of the interventions within (Hammerschmidt et al., 2011, Middleton et al., 2012). Often the authors indicate a key influencing factor for

program efficiency and success is collaboration between ‘stakeholders’ involved in the program (Middleton et al., 2012). It has been further suggested that any person who has a ‘stake’ in a program at any level has a vested interest and therefore should be considered as a potential ‘stakeholder’. Moreover, it has been stated that stakeholders can be an array of people involved in a program such as; decisions makers, policy makers, advisors, developers, designers, administrators, service staff, managers, and also people who are beneficiaries from the programs delivery (children, families, community people). Indeed, all these stakeholders are regularly involved in program implementation and are consequently required to take responsibility and ‘play a part’ to instigate and install healthier behaviors early in a child's development. Importantly, stakeholders must not be passive in the process of collaboration. Instead they must have an ‘active role’ in the program particularly if any evaluation is conducted.

Given that school-based programs (and the interventions within) rely on a range of stakeholders, the extent to which these particular stakeholders engage in any intervention can impact on the overall direction and outcome of the program. Two key stakeholder groups are teachers and parents. For example, an intervention that has the contributions of parents would have a different focus and design (i.e. through a first-hand appreciation of how messages can be supported in the home environment) and potential for sustainability than one that does not. Therefore, stakeholder input and relations should be considered as a key part of planning, implementing and evaluating complex school-based programs (Pettigrew et al., 2012). In particular, the role parents and teachers take is critical for underpinning any intervention feasibility, acceptability and overall performance (Della Torre et al., 2010, Bruss et al., 2010, Downs et al., 2012; Arevalo & Comighud, 2020; Lalamonan & Comighud, 2020; Comighud, 2019; Comighud et al., 2020).

Several studies have attempted to conduct interventions using both parents and teachers together, with a view to generating improved health outcomes (Lippevelde et al., 2012). Such outcomes could range from ‘making better choices’ to measurable changes in adiposity or body mass index (BMI). The interventions in these studies ranged from 6-weeks to 3-years, and supported ‘health education’ through a combination of classroom activities, school events, promotional materials sent home from school, reward schemes for families, and even health-checks with feedback to parents. Specifically, these studies compared the effects of involving parents in school-based interventions versus restricting activities to the school environment, and four out of the five studies reviewed by Lippevelde et al. (2012) reported a beneficial effect of involving parents, with the fifth showing no difference. Involving parents in school-based interventions delivered stronger improvements in dietary knowledge, health behaviors, BMI and fat intake than exclusively school-based programs (Lippevelde et al., 2012). When asked how interventions could be tailored to optimize their involvement, parents suggested that interactive and practical activities, such as after school cooking classes or nutrition workshops may be ideal.

Additionally, attempts to involve parents should be affordable, convenient, focused on the child's health (and not the parents' potential shortcomings), and not ‘preachy’ or theoretical (Lippevelde et al., 2011). The qualitative evaluation of such a program performed by Middleton et al. (2012) largely supported these assertions, and flagged both opportunities and barriers to the successful delivery of teacher-parent interventions aimed at supporting children's dietary health.

## **PROPOSED PROGRAM FOR THE ENHANCEMENT OF SCHOOL-BASED FEEDING PROGRAM OF MANSAGOMAYON ELEMENTARY SCHOOL**

Utilizing the results of this study as the basis, the researcher has formulated an enhancement program designed for the school of Mansagomayon Elementary School. This program will develop and strengthen implementation of School-based Feeding Program.

### **Rationale of the Enhancement Program**

The results of this study showed that there is a high significant difference of the baseline and endline data of the pupils' nutritional status. This implies that is a positive effect of the program. Nevertheless, there are still specific areas to improve and develop to enhance the program.

In so doing, this enhancement program is designed to assist School Head, SBFP In-Charge, parents and pupils in the manner of implementation and management of the school-based feeding program, given all its resources can function in its optimum through various activities. Consequently, it is assumed that the stakeholders can function better as through this program.

### **Program Description**

This enhancement program is designed to sustain or enhance the school-based feeding program of Mansagomayon Elementary School, Sta. Catalina District 4 Schools in the Division of Negros Oriental. Furthermore, it is hoped to reinforce significantly the working relationship of school heads, SBFP In –Charge, Parents and teachers and strengthen the implementation to be more efficient, effective and productive. More specifically, this enhancement and development program includes proposed programs, activities, and interventions to the problem on the implementation. It is suggested to take effect in the Academic Year (AY) 2019-2020.

Areas of Concern	Specific Objectives	Programs/ Projects/ Activities (Description)	Strategies	Time Frame	Budget Source	Persons Involved	Performance Indicator	Success Indicator
<b>Implementation</b>	To intensify the proper conduct of the School-Based Feeding Program	Feedback mechanism from /Monitoring and Evaluation of Results	Collect feedback through suggestion box, meetings, one-on-one interview with pupils, parents and teachers.	Whole Year round	Schools MOOE Donation from Sponsors in the community	School Heads; Resource Persons	No. of solicited feedbacks and meetings	Enhanced school-based feeding program
<b>Manpower</b>	To encourage parents to cooperate in the program  To spot parents knowledgeable to cook	<i>Conduct general PTA meeting Make agreement with parents Interview and background check</i>	-Send letter to parents -Schedule and group parents to cook everyday -One-on one interview with parents	Can be conducted every beginning until the end of the school year	Division and Schools MOOE Donation from Sponsors in the community	School Heads; Resource Persons	Spotted cook parent	Cooked Menus
<b>Insufficient Operational Expenses</b>	To encourage parents to bring water and firewood	Assign parents to bring water and firewood	Schedule parents to bring water and firewood	Conducted every beginning until the end of the school year	Division and Schools MOOE Donation from Sponsors in the community	School Heads; Resource Persons	water and firewood	Cooked Menus
<b>Table Manners</b>	To teach proper table manners and importance of discipline  To demonstrate proper use of eating utensils	Discuss proper table manners and discipline  Demonstrate proper use of eating utensils	Lesson integration  Demonstration proper use of eating utensils	Conducted every beginning until the end of the school year	Division and Schools MOOE Donation from Sponsors in the community	School Heads; Resource Persons	Proper table manners  Proper use of eating utensils	Proper table manners  Proper use of eating utensils

## IV. CONCLUSIONS

Based on the above findings, the following conclusions were drawn:

It is concluded that the pupils of Mansagomayon Elementary School for SY 2018-2019 are categorized as underweight based on the baseline BMI data. Pupils revealed that they have no enough food at home and parents also revealed that their children demonstrate poor eating habits. Although, some pupils were underweight, through this School-Based feeding program the endline result revealed that there was an improvement on their nutritional status. In fact, parents concluded that their children gained weight, developed good eating habit, become more energetic and sociable with others. Pupils claimed that they are now physically active as they are engaged in class activities, mentally sharp in academic undertakings and sociable in interpersonal engagements. Teachers, School-Based Feeding Program In-Charge and School Heads concluded that pupils are more active in class and display more focus in the accomplishment of their classroom tasks. They claimed that pupils if provided with the adequate amount of food and given the right nutrition can ultimately perform better and potentially increase their overall performance in schools.

However, there are also challenges encountered by the stakeholders such as less cooperative parents, unavailability of expert volunteer, insufficient operational expenses, lack of discipline and proper table manners and some recipients do not know how to use spoon and fork among others.

## V. RECOMMENDATIONS

Based on the conclusions of the study, the following recommendations are advanced to:

**Pupils.** Since they have improved in their nutritional status it is recommended that they should have self-discipline specially in eating the food given to them. They should not left any amount of food on their plates. They should have washed their hands before and after meal to ensure cleanliness and safety. Brush their teeth after eating to improve as well their oral health. Have patience and cooperate in waiting their turn in getting their food and properly wash the utensils after using. Follow the eating rules imposed in the feeding center. And most of all they should have the habit of thanking the Above Almighty for the food they eat as well as the parents who prepared their food.

**Parents.** It is recommended that parents should be proactive in supporting the program as the primary external stakeholder. They should be present during their turn in cooking the food. If they don't know how to cook they should help in other means. If they have available vegetables at home it would be of great help to bring some to ensure fresh vegetables from their backyard. Parents should be on time during their schedule.

They must be conscious in time of cooking to reach the exact time to feed the pupils. Parents must be willing to sacrifice their time, efforts, and energy to fulfil their tasks in preparing the food. They should be willing to bring water and firewood since it is essential in cooking. They should bear in mind that without it their children cannot eat. From time to time, they should give feedback to the SBFP In-Charge and School Head to their experiences and difficulties encountered during cooking, and suggest any idea to improve more the system in the program. Parents should understand that their cooperation would have a great impact in their pupils performance and the school.

**Teachers.** It is recommended that teachers should cooperate and active in the implementation of the program and activities deemed necessary for the success of the implementation of the program. They should sacrifice and give time to help the parents assigned in cooking and assist the children while eating. They should be a great motivator to the children in developing good eating habit. They should see to it that the children follow the imposed rules in the feeding center. They should lead and be a great example to the children in proper table etiquette. The teacher should imprint on their mind to be grateful for the food they have and tell them to pray before and after meal. They should see to it that the children eat on time. They should supervise the hand washing and tooth brushing of the children. They should lead and strengthen the complementary programs like GulayansaPaaralan Alay saKabataan (GPAK) and essential health programs. They should have a close monitoring in the children's nutritional health status, development in academics and notify it to parents.

**SBFP In-Charge.** It is recommended that School-Based In-Charge should personally lead and guide the volunteer stakeholder in cooking the menu of the day and other resources necessary for cooking. They should closely monitor the food supply so as not to sacrifice the amount of food for the children. The freshness and quality of the vegetables and ingredients must be ensured by them. They should check the budget from time to time and find alternatives for those vegetables with high price but does not sacrifice the target nutrients of the menu. They should check the proper preservation of food supply to save the budget, time and effort. They should lead the marketing and proper handling to avoid food contamination. They should check the cleanliness and proper hygiene while cooking as well as the proper garment for cooking. The utensils and cook wares must be inspected, to see to it that it is clean before and after using. They should closely monitor the health development of the children.

**School Head.** It is recommended that school head should closely monitor the program where there is close association to teachers and parents. She should liquidate on time so that the budget should be released on time. It is recommended that she should see to it that proper implementation is done. Additionally, she should tap other stakeholders that could best help the program.

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## APPENDIX

### Perceived Benefits of Feeding Program in the Eyes of the Stakeholders

#### Interview Questions for the Stakeholders

(School Administrators/SBFP In-Charge)

1. Please tell me a little bit about yourself and your role here, including:
  - How many years are you in the service?
  - How many years are you in this school?
2. How in your setting do you define school-based feeding program?
3. Based on your perspective, can you share your thoughts on:
  - What are the objectives of School-Based Feeding Program?
4. How do you look at the conduct of School-Based Feeding Program?
  - What are the benefits of the School-Based Feeding Program?
  - How effective is School-Based Feeding Program?
  - How efficient is School-Based Feed Program?
  - How relevant is the School-Based Feeding Program?
  - How sustainable is School-Based Feeding Program?
5. Do you think this program is helpful to your pupils/ children as beneficiaries?
6. Is there a difference in the child's physical, mental and social development since the start and up to the end of the program? How about in terms of the following aspects:
  - improving physical health and providing nutritional benefits;
  - promoting academic learning and enhancing scholastic achievement
  - increasing school participation and educational access;
  - establishing healthy eating behaviors among children; and
  - promoting collaboration among stakeholders
7. Exit question: What enhancement program could you suggest to improve this program even more?

## KII Guide Questions

### Perceived Benefits of Feeding Program in the Eyes of the Stakeholders

#### Interview Questions for the Stakeholders (*Teachers*)

1. Please tell me a little bit about yourself and your role here, including:
  - How many years are you in the service?
  - How many years are you in this school?
2. How in your setting do you define school-based feeding program?
3. Based on your perspective, can you share your thoughts on:
  - What are the objectives of School-Based Feeding Program?
4. How do you look at the conduct of School-Based Feeding Program?
  - What are the benefits of the School-Based Feeding Program?
  - How effective is School-Based Feeding Program?
  - How efficient is School-Based Feed Program?
  - How relevant is the School-Based Feeding Program?
  - How sustainable is School-Based Feeding Program?
5. Do you think this program is helpful to your pupils/children as beneficiaries?
6. Is there a difference in the child's physical, mental and social development since the start and up to the end of the program? How about in terms of the following aspects:
  - improving physical health and providing nutritional benefits;
  - promoting academic learning and enhancing scholastic achievement
  - increasing school participation and educational access;
  - establishing healthy eating behaviors among children; and
  - promoting collaboration among stakeholders
7. Exit question: What enhancement program could you suggest to improve this program even more?

### Perceived Benefits of Feeding Program in the Eyes of the Stakeholders

#### Interview Questions for the Stakeholders (*Pupils*)

1. Please tell me a little bit about yourself and your role here, including:
  - How many years are you in the service?
  - How many years are you in this school?
2. How in your setting do you define school-based feeding program?
3. Based on your perspective, can you share your thoughts on:
  - What are the objectives of School-Based Feeding Program?
4. How do you look at the conduct of School-Based Feeding Program?
  - What are the benefits of the School-Based Feeding Program?
  - How effective is School-Based Feeding Program?
  - How efficient is School-Based Feed Program?
  - How relevant is the School-Based Feeding Program?
  - How sustainable is School-Based Feeding Program?
5. Do you think this program is helpful to your pupils/children as beneficiaries?
6. Is there a difference in the child's physical, mental and social development since the start and up to the end of the program? How about in terms of the following aspects:
  - improving physical health and providing nutritional benefits;

- promoting academic learning and enhancing scholastic achievement
  - increasing school participation and educational access;
  - establishing healthy eating behaviors among children; and
  - promoting collaboration among stakeholders
7. Exit question: What enhancement program could you suggest to improve this program even more?

## KII Guide Questions

### Interview Questions for the Stakeholders (*Parents*)

1. Please tell me a little bit about yourself and your role here, including:
  - How many children do you have in school?  
*Pila kabuok ang imo anak/mga anak?*
  - Does your child included in the feeding program?  
*Aduna kaba'y anak nga apil sa programa?*
  - What grade level is he/she?  
*Unsa nga grado?*
  
2. How in your setting do you define school-based feeding program?  
*Para nimo unsa man kabahin king libreng pakaon sa eskwelahan?*
  
3. Based on your perspective, can you share your thoughts on:
  - What are the objectives of School-Based Feeding Program?  
*Unsa kaha ang hinungdan niini?*
  - How do you look at the conduct of School-Based Feeding Program?  
*Giunsa kini pagpatuman?*
  
  - What is the impact of the School-Based Feeding Program?  
*Unsa ang epekto sa programa?*
  
  - How effective is School-Based Feeding Program?  
*Unsa ka epektibo ang programa?*
  
  - How efficient is School-Based Feeding Program?  
*Eficient ba kini?*
  
  - How relevant School-Based Feeding Program?  
*Importante ba akini?*
  
  - How sustainable are School-Based Feeding Program?  
*Makalungtad ba kini?*
  
4. Do you think this program is helpful to your pupils/your child?  
*Makatabang ba kini sa imong anak?*
  
5. Is there a difference in the child's physical, mental and social development since the start and up to the end of the program?  
*Aduna bay deferecia ang panglawas, panghuna-huna, ug pagkulo-kabildo sa uban sa imong anak?*
  
6. Exit question: What enhancement program could you suggest to improve this program even more?  
*Unsa kaha ang pwedeng mahimo aron mapalambo pa gayud ang programa?*